TEAM2100

Environment Agency

The new revetment material

What will it look and feel like?

The new revetment will be made of Open Stone Asphalt (OSA). The OSA will be made of gravel stuck together with bitumen, meaning that the surface will feel rough and be grey in appearance. Bitumen is used in our current revetment repair works on Canvey Island and so there will be no significant change in colour once the OSA is laid, but the OSA will further soften in colour as time passes as shown in the adjacent photos.

What are the benefits of the new revetment?

The OSA will form one complete revetment along the 3.2km frontage. This means there will be no joints in revetment material. This will reduce the chance of join material being lost, and therefore reduce the risk of erosion and loss of material from underneath the revetment. The spaces between the gravel within the OSA will not be completely filled with bitumen, allowing the material to absorb wave energy and reducing the chance of material eroding.

Existing Revetment at Canvey Island



Open Stone Asphalt laid in 2005 at Two Tree Island 2006 2019





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Why not replace the revetment with new concrete blocks?

The jointing material between concrete blocks is vulnerable to erosion which can lead to holes in the revetment. OSA ensures the revetment is one single material, removing this problem. OSA is also quicker to lay than concrete blocks meaning that the project will be on-site for less time than if concrete blocks were proposed. There are also significant challenges installing concrete blocks in a tidal environment alongside modern health and safety standards.

What is the life expectancy of the new revetment?

The new revetment will last approximately 50 years, until 2070, by when we currently anticipate we will need to raise the tidal defences in line with anticipated sea level rise. The design of the revetment means we do not anticipate needing to carry out repairs as often as we currently do.

Existing Revetment at Canvey Island



Open Stone Asphalt laid in 2005 at Two Tree Island 2006 2019



